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**Missing learning opportunities in classroom instruction: evidence from an analysis of a well-structured lesson on comparing fractions.**

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Summary: This paper analyzed a well-structured lesson to examine the opportunities and missing opportunities for students' learning in terms of developing basic skills and higher-order thinking skills. The instructional activities in the lesson that show a very systematic choice of variation and clear focus, may serve well the goal of teaching a specific basic skill. However, the type of engagement the teacher created in the lesson is less ideal for fostering students' higher-order thinking skills. While both basic and higher-order thinking skills are important and it is not necessary to sacrifice basic skills for higher-order thinking, nor higher-order thinking for basic skills, this paper calls for research and design classroom instruction to develop both basic skills and higher-order thinking.

*Classification:* F43 C33 C73 D43

*Keywords:* mathematics education; research; teaching; learning; classroom observation; mathematical ability; basic skills; fostering higher-order thinking skills; missing opportunities for independent explorations; teacher-student interactions; general aspects of comparing fractions; specific aspects of comparing two particular fractions